

The opinion in support of the decision being entered
today is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WILLIAM D. DENISON, LAWRENCE C. BROWNFIELD,
and BRADLEY S. SILVERS

Appeal 2007-0958
Application 10/807,935¹
Technology Center 2600

Decided: October 10, 2007

Before ALLEN R. MACDONALD, ST. JOHN COURTENAY III, and
CAROLYN D. THOMAS *Administrative Patent Judges*.

THOMAS, C., *Administrative Patent Judge*.

DECISION ON APPEAL

¹ Filing date: March 24, 2004. The real party in interest is Micro Enhanced Technology, Inc.

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from a Final Rejection of claims 1-48 entered December 13, 2005. However, in the Examiner's Answer mailed July 19, 2006 the rejection of claims 22, 24, 32, 33, 41, and 42 are withdrawn. We have jurisdiction under 35 U.S.C. § 6(b).

Appellants invented a method for operating an electronic access control device. (Specification 4:18-22).

The appeal contains claims 1-21, 23, 25-31, 34-40, and 43-48. Claims 1, 8 and 15 are independent claims. As best representative of the disclosed and claimed invention, claim 1 is reproduced below:

1. A method comprising the steps of:
 - deactivating a circuit during a first time period;
 - enabling a portion of the circuit for a second time period;
 - sensing an electromagnetic signal during the second time period;
 - enabling the circuit for an extended time period that is greater than the second time period upon the sensing of the electromagnetic signal;
 - processing the electromagnetic signal during the extended time period to obtain an input code;
 - comparing the input code to an access code; and
 - providing a signal to unlock a device if the input code matches the access code.

The following revised rejections were presented in the Examiner's Answer on pages 3-4 and are now before us for review:

Claims 1-4, 6-9, 11-17, 19-21, 23, 25-31, 34-40, and 43-48 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Stengel in view of Lemelson; and

Claims 5, 10, and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Stengel in view of Lemelson and further in view of Stamm.

Appellants appealed from the Final Rejection and filed an Appeal Brief (Br.) on June 13, 2006. The Examiner mailed an Examiner's Answer (Answer) on July 19, 2006. Appellants filed a Reply Brief (Reply Br.) on September 19, 2006.

We affirm.²

REFERENCES

The references relied upon by the Examiner in rejecting the claims on appeal are as follows:

Stamm	US 4,353,064	Oct. 5, 1982
Lemelson	US 4,354,189	Oct. 12, 1982
Stengel	US 5,109,530	Apr. 28, 1992

ISSUES

The issue is whether Appellants have shown that the Examiner erred in rejecting representative claim 1 under 35 U.S.C. § 103(a) as being unpatentable over Stengel and Lemelson.

This issue specifically turns on whether the combination of Stengel and Lemelson teaches or suggests “*processing the electromagnetic signal during the extended time period to obtain an input code*” and “*providing a signal to unlock a device if the input code matches the access code*”, as required by claim 1.

² Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. See 37 C.F.R. § 41.37(c)(1)(vii) (2004).

FINDINGS OF FACT

The following findings of fact (FF) are supported by a preponderance of the evidence.

Stengel

1. Stengel describes that a “[r]eceiver 100 is placed in a battery saver mode when a non-valid coded squelch signal is detected. ...The battery saver mode is departed once a change in the non-valid coded squelch signal is detected.” (Stengel, Abstract).

2. Stengel describes that “[b]attery saving circuits are used to minimize power consumption by periodically, rather than continuously, supplying power to a receiver.” (Col. 1, ll. 10-11).

3. Stengel states at column 1, lines 12-17, that “[p]resently known circuits operating in radio receivers periodically supply power, search for the presence of an RF (radio frequency) carrier and then, if a carrier is found, extend the time the power is supplied to permit a further search for a valid coded squelch signal (CSS).”

4. In Stengel, “[t]he battery saver mode (BSM) is defined as the time that certain elements of a receiver, such as; the synthesizer, and the amplifiers are either off or in the standby mode.” (Col. 3, ll. 7-10).

5. Stengel further discloses that “[t]he opposite state of the BSM is referred to as receiver ON state. The receiver ON state is defined as the period that the receiver is on, either receiving and processing a signal with a valid CSS or checking the contents of a non-valid CSS to determine its next state.” (Col. 3, ll. 14-18).

6. Stengel discloses that “[o]ne available method by which the decoder 206 decodes the detected CSS is by comparing it to a bank of available CSSs stored at a memory block 210 to determine which one has been received.” (Col. 3, ll. 28-32).

7. Stengel further discloses that “[t]he output of the comparator 212 which is a signal corresponding to the result of this comparison is connected to a battery saver switch 216.” (Col. 3, ll. 49-52).

Lemelson

8. Lemelson describes “an automatic means for reading the codes of the rings to cause or enable a switch, ... ,or a door lock to open...” (col. 1, ll. 19-23).

9. In Lemelson, the “invention is directed to a simple electronic means for generating an electrical code in response to reading a recording of such code provided in the crown or alongside the crown of a finger ring to enable a switch to close or a doorlock to open...” (col. 1, ll. 43-51).

10. In Lemelson, “[t]he comparator 15 compares the parallel code with one or more authorized codes presented to it from a memory 16.” (Col. 3, ll. 66-68).

11. In Lemelson, “[i]f the code so presented matches the code or codes in the comparator memory 16, a signal is generated on an output 15A of comparator 15 which is either applied directly or indirectly to a motor or solenoid 21 operating the lock 21L to open.” (Col. 4, ll. 3-7).

12. Lemelson discloses that “...in Fig. 14 ...the code generating circuits supported by chip 99 may be operable to generate such code and transmit it via short wave radio to the code transceiver 18..to open a lock...” (col. 12, ll. 21-47).

Stamm

13. Stamm discloses a battery operated access control card 10 that “can receive any type of wireless transmission from a transmitter such as ultrasonic, infrared, etc., ...” (col. 2, ll. 48-51).

PRINCIPLES OF LAW

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). *See also KSR*, 127 S. Ct. at 1734, 82 USPQ2d at 1391 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”)

In *KSR*, the Supreme Court emphasized “the need for caution in granting a patent based on the combination of elements found in the prior art,” *id.* at 1739, 82 USPQ2d at 1395, and discussed circumstances in which a patent might be determined to be obvious. In particular, the Supreme Court emphasized that “the principles laid down in *Graham* reaffirmed the ‘functional approach’ of *Hotchkiss*, 11 How. 248.” *KSR*, 127 S. Ct. at 1739, 82 USPQ2d at 1395 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966) (emphasis added)), and reaffirmed principles based on its precedent that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* The Court explained:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 1740, 82 USPQ2d at 1396. The operative question in this “functional approach” is thus “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.*

The Supreme Court stated that there are “[t]hree cases decided after *Graham* [that] illustrate this doctrine.” *Id.* at 1739, 82 USPQ2d at 1395. “In *United States v. Adams*, ... [t]he Court recognized that when a patent claims a structure already known in the prior art that is altered by the mere

substitution of one element for another known in the field, the combination must do more than yield a predictable result.” *Id.* at 1739-40, 82 USPQ2d at 1395. “*Sakraida and Anderson’s-Black Rock* are illustrative – a court must ask whether the improvement is more than the predictable use of prior art elements according to their established function.” *Id.* at 1740, 82 USPQ2d at 1395.

The Supreme Court stated that “[f]ollowing these principles may be more difficult in other cases than it is here because the claimed subject matter may involve more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement.” *Id.* The Court explained, “[o]ften, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *Id.* at 1740-41, 82 USPQ2d at 1396. The Court noted that “[t]o facilitate review, this analysis should be made explicit.” *Id.*, citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”). However, “the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *Id.*

ANALYSIS

In essence, Appellants present six (6) different arguments. For example, Appellants separately argue claims 1, 5, 34, 26, 27, and 30.

For claims 2-4, 6-9, 11-17, 19-21, 23, 25, 28-31, 35-40, and 43-48, Appellants repeat the same argument made for claim 1. We will therefore treat claims 2-4, 6-9, 11-17, 19-21, 23, 25, 28-31, 35-40, and 43-48 as standing or falling with claim 1.

For claims 10 and 18, Appellants repeat the same argument made for claim 5. We will therefore treat claims 10 and 18 as standing or falling with claim 5.

For claim 43, Appellants repeat the same argument made for claim 34. We will therefore treat claim 43 as standing or falling with claim 34.

For claim 35, Appellants repeat the same argument made for claim 26. We will therefore treat claim 35 as standing or falling with claim 26.

For claim 36, Appellants repeat the same argument made for claim 27. We will therefore treat claim 36 as standing or falling with claim 27.

For claim 39, Appellants repeat the same argument made for claim 30. We will therefore treat claim 39 as standing or falling with claim 30.

See 37 C.F.R. § 41.37(c)(1)(vii). *See also In re Young*, 927 F.2d 588, 590, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991).

Regarding Representative Claim 1

Appellants contend that “nothing is disclosed in Lemelson regarding conserving power as claimed by the Applicants in the application-at-issue.” (Br. 4). Appellants further contend that “Lemelson does not provide for

enabling a circuit for an extended time period so an input can be received.” (Br. 5).

The Examiner concedes that Lemelson does not specifically show the power controlling modes claimed. (Answer 3). Instead, the Examiner relies upon Stengel and states that “Stengel teaches a method that is used to save power in a receiver.” (Answer 3). We agree.

Specifically, Stengel discloses a receiver that can be placed in a battery saver mode by using a battery saving circuit that periodically, rather than continuously, supplies power to a receiver. (FF 1-2 and FF 4-5). Thus, Stengel discloses deactivating a circuit during a first time period and enabling a portion of the circuit for a second time period, as set forth in claim 1.

In addition, Stengel discloses searching for the presence of an RF carrier and if found, extending the time the power is supplied. (FF 3). Thus, Stengel discloses sensing an electromagnetic signal during the second time period and enabling the circuit for an extended time period that is greater than the second time period upon the sensing of the electromagnetic signal, as set forth in claim 1.

Furthermore, Stengel discloses processing a signal during the receiver ON state and comparing an inputted CSS signal to a bank of available CSSs stored at a memory block 210 to determine which one has been received. (FF 5-6). Thus, Stengel discloses processing the electromagnetic signal during the extended time period to obtain an input code (e.g., CSS data), and comparing the input code to access data. Here “access data” is interpreted as any data which allows the freedom or ability to obtain or make use of something. Claims are given their broadest reasonable construction “in light

of the specification as it would be interpreted by one of ordinary skill in the art.” *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364, 70 USPQ2d 1827, 1830 (Fed. Cir. 2004).

Stengel further discloses that a signal corresponding to the result of the comparison is connected to a battery saver switch. (FF 7). Thus, Stengel discloses providing a signal if the input code matches the access code.

However, Stengel is not being relied upon to show providing a signal to unlock a device. Instead, the Examiner states that “Lemelson shows an unlocking device where a receiver in the reader receives a reply signal from a coded ring.” (Answer 3). In other words, Lemelson is being relied upon to disclose a receiver providing a signal to unlock a device if codes match.

Specifically, Lemelson discloses means for reading the codes of the finger ring and in response generating an electrical code to enable a switch to close or a doorlock to open. (FF 8-9). Lemelson further discloses that a comparator compares the code with one or more authorized codes and if the codes match, a signal is generated which is applied to a motor or solenoid operating the lock to open. (FF 10-11). Thus, it is our view that Lemelson discloses using a receiver and comparing an input code to an access code and providing a signal to unlock a device if the input code matches the access code, as set forth in claim 1. (FF 12).

Based on our analysis of the scope and content of Stengel and Lemelson, the facts support the conclusion that but for the “providing a signal to unlock a device if the input code matches the access code” feature, Stengel’s receiver with battery saver discloses all the elements of the claimed method and that the above-noted feature was disclosed in Lemelson. Since each individual function, as described in claim 1, are shown in the

prior art, albeit shown in separate references, the difference between the claimed subject matter and that of the prior art rests not on any individual element or function but in the very combination itself; that is, in the combination of Lemelson's lock activating method with Stengel's receiver with battery saver.

Appellants further contend that "the prior art fails to provide a motivation to combine the references in the manner claimed." (Reply Br. 2).

For example, Appellants contend that "instead of saving power, Lemelson expressly teaches that another suitable power source (i.e., line current) should be sought instead of making attempts to conserve power." (Reply Br. 2).

We disagree with this interpretation of Lemelson. Lemelson discloses that "[n]otation 22 refers to a suitable source of electrical energy such as a battery or line current" (Lemelson, col. 4, ll. 47-48). Thus, contrary to Appellants' contention, Lemelson does not state that another suitable power source should be sought instead of making attempts to conserve power. Lemelson merely lists the type of electrical energy that can be used.

Where, as here, the application claims the combination of familiar elements according to known methods, it is likely to be obvious when it does no more than yield predictable results. *KSR*, 127 S. Ct. at 1739, 82 USPQ2d at 1395. In that regard, it is our view that Appellants have provided no evidence that combining Stengel's "receiver with battery saver" with Lemelson's "lock activating system" yields an unexpected result or was beyond the skill of one having ordinary skill in the art. Appellants' Specification as well as Appellants' arguments do not present any evidence that including a method for conserving power while providing a signal to

unlock a device was uniquely challenging or difficult for one of ordinary skill in the art.

Additionally, Appellants argue “the claims in the current application have been rejected by: 1) using impermissible hindsight to correct for a failing to find a suggestion to combine the references.” (Br. 4). The Supreme Court noted in *KSR* that:

A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. See *Graham*, 383 U.S., at 36, 86 S. Ct. 684 (warning against a “temptation to read into the prior art the teachings of the invention in issue” and instructing courts to “‘guard against slipping into the use of hindsight’ ” (quoting *Monroe Auto Equipment Co. v. Heckethorn Mfg. & Supply Co.*, 332 F.2d 406, 412 (C.A.6 1964))).

127 S. Ct. at 1742, 82 USPQ2d at 1397. We find no hindsight is required to construct Appellants’ invention from the prior art because as we have already noted, we only find before us two known methods in combination doing no more than they would in separate, sequential operation.

In cases such as the one before us, where the claim is two methods already known in the prior art that are unaltered by the mere combination of one known element with another element known in the field for the same function, we see little need for the Examiner to belabor the analysis with a detailed explanation as to why it would have been obvious to one of ordinary skill in the art to derive the claimed combination from the teachings of the prior art. The facts themselves show that there is no difference between the claimed subject matter and the prior art but for the combination itself. “[T]he mere existence of differences between the prior art and an invention does not establish the invention's nonobviousness. The gap between the

prior art and respondent's system is simply not so great as to render the system nonobvious to one reasonably skilled in the art.” *Dann v. Johnston*, 425 U.S. 219, 230, 189 USPQ 257, 261 (1976) (holding that claims directed to a machine system for automatic record keeping of bank checks and deposits were obvious in view of the use of data processing equipment and computer programs in the banking industry at the time of the invention in combination with a prior art automatic data processing system using a programmed digital computer for use in a large business organization).

It is sufficient in cases like this that the Examiner has reached a conclusion of obviousness after careful consideration of the evidence within the Graham framework. The burden, in cases like this, is properly shifted to Appellants to prove that the claimed subject matter would not have been obvious over the prior art to one of ordinary skill in the art. Since here Appellants has presented no evidence that combining Stengel’s “receiver with battery saver” with Lemelson’s “lock activating method” would have required anything more from one of ordinary skill in the art than to combine two known features doing no more than they would in separate, sequential operation, the Examiner’s prima facie case of obviousness has not been overcome, irrespective of Appellants’ views about the strength of the Examiner’s reasoning. Accordingly, we conclude that the subject matter of claim 1 would have been obvious to one of ordinary skill in the art given the teachings of Stengel and Lemelson.

Regarding Claim 5

Appellants contend that “Stamm does not teach or suggest using infrared within an unlocking device that is periodically enabled to receive an

input code.” (Br. 10). However, Stamm is not being relied upon to disclose an unlocking device that is periodically enabled. As noted above, the Examiner’s prima facie case of obviousness has been established with the combination of Stengel and Lemelson to disclose such a feature. Stamm is imported merely to show infrared signals. (FF 13).

Accordingly, we conclude that the subject matter of claims 5, 10, and 18 would have been obvious to one of ordinary skill in the art given the teachings of Stengel, Lemelson and Stamm.

Regarding Claim 34

Appellants contend that “claims 3[4] and 43 require periodically enabling and disabling a low-battery detection circuit for measuring a battery voltage” (Reply Br. 3) and “the prior art of record also fails to teach or suggest, among other things: a low-battery indicator” (Br. 9). We agree.

It is our view that the Examiner fails to show where the above noted elements appear in the cited combination of prior art references.

Specifically, it is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the invention as set forth in claims 34 and 43. Accordingly, we reverse.

Therefore, we will not sustain and will instead reverse the Examiner’s rejection of claims 34 and 43 under 35 U.S.C. § 103 for the same reasons as set forth above.

Regarding Claim 26

Appellants contend that “claims 26 and 35 require the steps of providing a non-zero power output to unlock a device, providing a lower non-zero power output to the device and transitioning from the non-zero power output to the lower non-zero power output” (Reply Br. 3) and “the prior art of record also fails to teach or suggest, among other things: ...a two-current solenoid driver” (Br. 9). We agree.

It is our view that the Examiner fails to show where the above noted elements appear in the cited combination of prior art references.

Specifically, it is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the invention as set forth in claims 26 and 35. Accordingly, we reverse.

Therefore, we will not sustain and will instead reverse the Examiner’s rejection of claims 26 and 35 under 35 U.S.C. § 103 for the same reasons as set forth above.

Regarding Claims 27 and 30

Appellants contend that “the references do not indicate...the necessity of writing the access code into a memory in response to a write signal received through a communication port as set forth in claims 27 and 36” (Reply Br. 4) . Appellants further contend that “the references do not indicate . . . the necessity of transmitting the access code through a communication port in response to a read signal as set forth in claims 30 and 39” (Reply Br. 4) and “the prior art of record also fails to teach or suggest,

among other things: reading and writing codes to memory” (Br. 9).
We disagree.

Both Stengel and Lemelson disclose data being stored in memory and periodically retrieved for comparison therewith. (FF 6 and 10). The claim language do not require the writing or reading of the access code to/from memory at any particular time, just that it is done in response to a write/read signal. It is our view that a write/read signal is inherently required in order to have the data stored in memory and retrieved from memory, respectively.

Accordingly, we conclude that the subject matter of claims 27, 30, 36, and 39 would have been obvious to one of ordinary skill in the art given the teachings of Stengel and Lemelson.

CONCLUSIONS

We conclude that Appellants have not shown that the Examiner erred in rejecting claims 1-21, 23, 25, 27-31, 36-40, and 44-48.

Thus, claims 1-21, 23, 25, 27-31, 36-40, and 44-48 are not patentable.

Appellants have established that the Examiner erred in rejecting claims 26, 34, 35, and 43 as being unpatentable under 35 U.S.C. § 103(a) over Stengel and Lemelson.

DECISION

In view of the foregoing discussion, we affirm the Examiner's rejection under 35 U.S.C. § 103 of claims 1-21, 23, 25, 27-31, 36-40, and 44-48.

In view of the foregoing discussion, we reverse the Examiner's rejection under 35 U.S.C. § 103 of claims 26, 34, 35, and 43.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2006).

Appeal 2007-0958
Application 10/807,935

AFFIRMED-IN-PART

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Edward L. Bishop
FACTOR & LAKE, LTD
1327 W. Washington Blvd.
Suite 5G/H
Chicago IL 60607